

IN THE CLAIMS

Please take action regarding the claims so that the status is as follows:

1. (Currently amended) An electrical power supply system for an electrically powered motor vehicle, said vehicle including an electric motor, a transmission device for transmitting energy between the drive wheels and the motor, and electrical accessories, in particular an air-conditioning device, said system comprising a first rechargeable battery serving to power the electric motor and a second rechargeable battery serving to power the electrical accessories of the vehicle, said system being characterized in that the first battery and the second battery are connected in parallel to said motor via a switch device, said switch device being arranged to conduct current for powering the motor from the first and second batteries as a function of a first energy threshold, said first energy threshold being a predetermined value for which the energy delivered by the first battery only is not sufficient for accelerating the vehicle, and said switch device conducting current from the second battery only to the motor as a function of a second energy threshold for the energy from the first battery, said second energy threshold lower than the first energy threshold.

2. (Previously presented) A system according to claim 1, wherein the first battery is a battery of the Lithium-ion or Lithium-ion-polymer type.

3. (Previously presented) A system according to claim 1, wherein the second battery is a battery of the Lithium-metal-polymer type.

4. (Previously presented) A system according to claim 1, wherein the first battery is capable of delivering power in the range of 40 kW to 55 kW.

5. (Previously presented) A system according to claim 1, wherein the second battery is capable of delivering power of about 15 kW.

6. (Currently amended) A method of controlling an electrical power supply system for an electric motor for powering driving a vehicle according to claim 1, wherein:

when the energy delivered by the first battery is greater than a discharge energy threshold, providing power to the motor from the first battery so as to drive the drive wheels via the transmission device; and

sensing the energy delivered by the first battery, and when said first battery energy delivered is less than the discharge energy threshold, activating the switch device to conduct current to the motor from the second battery, to drive the wheels via the transmission device.

7. (Previously presented) A method according to claim 6, wherein:

when the energy necessary for the motor is greater than a low energy threshold, activating the switch device to conduct current to the motor from the first battery to drive the drive wheels via the transmission device; and

when the energy necessary for the motor is less than the low energy threshold, activating the switch device to provide power to the motor from the second battery to drive the wheels via the transmission device.

8. (Previously presented) A method according to claim 6, including the steps of:

sensing deceleration of the vehicle, and

while sensing deceleration, activating the switch device to distribute recharging current to the first and second batteries from the motor as a function of the allowable charging rates for the first and second batteries.

9. (Canceled)

10. (Previously presented) A method according to claim 7, including the steps of:

sensing deceleration of the vehicle, and

while sensing deceleration, activating the switch device to distribute a recharging current to the first and second batteries from the motor as a function of the allowable charging rates for the first and second batteries.

11. (New) The system of claim 1, wherein the switch device conducts current to the motor from the first battery when the motor energy exceeds a third threshold value, said

third threshold value less than the first energy threshold and greater than the second energy threshold.

12. (New) An electrical power supply system for an electrically powered motor vehicle, said vehicle including an electric motor, a transmission device for transmitting energy between the drive wheels and the motor, and electrical accessories, in particular an air-conditioning device, said system comprising a first rechargeable battery serving to power the electric motor and a second rechargeable battery serving to power the electrical accessories of the vehicle, said system being characterized in that the first battery and the second battery are connected in parallel to said motor via a switch device, said switch device being arranged to switch the current for powering the motor from the first battery to the second battery and conversely as a function of at least one energy threshold, said energy threshold being a predetermined value for which the energy delivered by the first battery is insufficient for the motor load.

13. (New) A system according to claim 12, wherein the first battery is a battery of the Lithium-ion or Lithium-ion-polymer type.

14. (New) A system according to claim 12, wherein the second battery is a battery of the Lithium-metal-polymer type.

15. (New) A system according to claim 12, wherein the first battery is capable of delivering power in the range of 40 kW to 55 kW.

16. (New) A system according to claim 12, wherein the second battery is capable of delivering power of about 15 kW.

17. (New) A method of controlling the electrical power supply system of claim 12, comprising the steps of:

when the energy delivered by the first battery is greater than a discharge energy threshold, powering the motor with the first battery to drive the drive wheels via the transmission device; and

when the energy delivered by the first battery is less than the discharge energy threshold, activating the switch device to conduct power to the motor from the first and second batteries.

18. (New) A method according to claim 15, wherein:

a. when the energy necessary for the motor is greater than a low energy threshold, powering the motor with the first battery only; and

b. when the energy necessary for the motor is less than the low energy threshold, to activate the switch device so as to cause the motor to be powered by the second battery only.

19. (New) A method according to claim 16, further including the steps of

a. detecting deceleration; and

b. activating the switch device to conduct recharging current to the first battery from the motor during transmission of mechanical energy from the drive wheels to the motor.